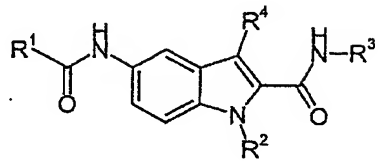
Claims

1. Use of compounds of the formula (I)



(I),

in which

R^1 represents $(C_5\text{-}C_{15})$-alkyl, $(C_5\text{-}C_{15})$-alkenyl or $(CH_2)_nG$,

in which

G represents cycloalkyl or represents a 5- or 6-membered heterocycle having one or two oxygen atoms,

n represents 0 to 4 and

alkyl, alkenyl and G are optionally substituted by 1 to 3 substituents, independently of one another selected from the group consisting of halogen, hydroxyl, trifluoromethyl, trifluoromethoxy, cyano, nitro, alkyl, alkoxy, alkylthio, carboxyl, alkoxycarbonyl, amino, alkylamino, alkylcarbonylamino and alkylaminocarbonyl,

R^2 represents $(C_1\text{-}C_8)$-alkyl, $(CH_2)_m$cycloalkyl, $(CH_2)_m$heterocyclyl, $(CH_2)_m$aryl or $(CH_2)_m$heteroaryl,

in which

m represents 0 to 4 and

alkyl, cycloalkyl, heterocyclyl, aryl and heteroaryl are optionally substituted by 1 to 3 substituents, independently of one another selected from the group consisting of halogen, hydroxyl, trifluoromethyl, trifluoromethoxy, cyano, nitro, alkyl, alkoxy, alkylthio, alkoxycarbonyl, amino, alkylamino, alkylcarbonylamino, alkylaminocarbonyl, alkylaminosulphonyl and alkylsulphonylamino,

R^3 represents $(CH_2)_o$cycloalkyl, $(CH_2)_o$heterocyclyl, $(CH_2)_o$aryl or $(CH_2)_o$heteroaryl,

in which

o represents 0 to 4 and

cycloalkyl, heterocyclyl, aryl and heteroaryl are optionally substituted by 1 to 3 substituents, independently of one another selected from the group consisting of halogen, hydroxyl, trifluoromethyl, trifluoromethoxy, cyano, nitro, alkyl, alkoxy, alkylthio, hydroxycarbonyl, alkoxycarbonyl, amino, alkylamino, alkylcarbonylamino, alkylaminocarbonyl, alkylaminosulphonyl and alkylsulphonylamino,

R^4 represents hydrogen, $(C_1$-$C_4)$-alkyl, $(CH_2)_p$cycloalkyl, $(CH_2)_p$heterocyclyl, $(CH_2)_p$aryl or $(CH_2)_p$heteroaryl,

in which

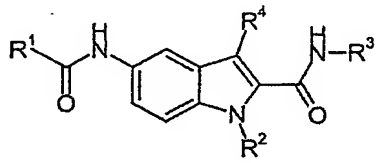
p represents 0 to 4 and

alkyl, cycloalkyl, heterocyclyl, aryl and heteroaryl are optionally substituted by 1 to 3 substituents, independently of one another selected

from the group consisting of halogen, hydroxyl, trifluoromethyl, trifluoromethoxy, cyano, nitro, alkyl, alkoxy, alkylthio, hydroxycarbonyl, alkoxycarbonyl, amino, alkylamino, alkylcarbonylamino, alkylaminocarbonyl, alkylaminosulphonyl and alkylsulphonylamino,

and their salts, hydrates, hydrates of the salts and solvates for the production of a medicament for the prophylaxis and/or treatment of urological disorders.

2. Use according to Claim 1, wherein compounds of the formula (I)



(I),

in which

R^1 represents $(C_5$-$C_{15})$-alkyl or $(CH_2)_n$cycloalkyl,

in which

n represents 0 to 4 and

alkyl and cycloalkyl are optionally substituted by 1 to 3 substituents, independently of one another selected from the group consisting of halogen, hydroxyl, trifluoromethyl, trifluoromethoxy, cyano, nitro, alkyl, alkoxy, alkylthio, carboxyl, alkoxycarbonyl, alkylcarbonylamino and alkylaminocarbonyl,

R^2 represents $(C_1$-$C_8)$-alkyl, $(CH_2)_m$cycloalkyl, $(CH_2)_m$heterocyclyl, $(CH_2)_m$aryl or $(CH_2)_m$heteroaryl,

in which

m represents 0 to 4 and

alkyl, cycloalkyl, heterocyclyl, aryl and heteroaryl are optionally substituted by 1 to 3 substituents, independently of one another selected from the group consisting of halogen, hydroxyl, trifluoromethyl, trifluoromethoxy, cyano, nitro, alkyl, alkoxy, alkylthio, alkoxycarbonyl, amino, alkylamino, alkylcarbonylamino, alkylaminocarbonyl, alkylaminosulphonyl and alkylsulphonylamino,

R^3 represents $(CH_2)_o$cycloalkyl, $(CH_2)_o$heterocyclyl, $(CH_2)_o$aryl or $(CH_2)_o$heteroaryl,

in which

o represents 0 to 4 and

cycloalkyl, heterocyclyl, aryl and heteroaryl are optionally substituted by 1 to 3 substituents, independently of one another selected from the group consisting of halogen, hydroxyl, trifluoromethyl, trifluoromethoxy, cyano, nitro, alkyl, alkoxy, alkylthio, hydroxycarbonyl, alkoxycarbonyl, amino, alkylamino, alkylcarbonylamino, alkylaminocarbonyl, alkylaminosulphonyl and alkylsulphonylamino,

R^4 represents hydrogen, $(C_1$-$C_4)$-alkyl, $(CH_2)_p$cycloalkyl, $(CH_2)_p$heterocyclyl, $(CH_2)_p$aryl or $(CH_2)_p$heteroaryl,

in which

p represents 0 to 4 and

alkyl, cycloalkyl, heterocyclyl, aryl and heteroaryl are optionally substituted by 1 to 3 substituents, independently of one another selected from the group consisting of halogen, hydroxyl, trifluoromethyl, trifluoromethoxy, cyano, nitro, alkyl, alkoxy, alkylthio, hydroxycarbonyl, alkoxycarbonyl, amino, alkylamino, alkylcarbonylamino, alkylaminocarbonyl, alkylaminosulphonyl and alkylsulphonylamino,

and their salts, hydrates, hydrates of the salts and solvates.

3. Use according to Claim 1, wherein compounds of the formula (I)

in which

R^1 represents neopentyl, (bicyclo[2.2.1]heptyl)methyl, cyclohexylmethyl, cyclobutylmethyl, cyclopentylmethyl, 2,2-dimethyl-1-butyl, 2-ethyl-2-methyl-1-butyl, (1-methylcyclopentyl)methyl), 1-methylcyclohexyl, 4-hydroxy-2,2-dimethyl-1-butyl or 2,2-dimethyl-1-but-3-enyl,

R^2 represents (C_1-C_4)-alkyl which may be substituted by hydroxyl or fluorine or represents benzyl which is optionally substituted by 1 or 2 substituents, independently of one another selected from the group consisting of fluorine, chlorine, bromine, methyl and trifluoromethyl,

R^3 represents phenyl, pyridyl or pyrimidyl which for their part are optionally substituted by a substituent selected from the group consisting of fluorine, chlorine, trifluoromethyl, methyl, ethyl, methoxy, ethoxy, n-propoxy, isopropoxy, amino, hydroxyl, hydroxy-

carbonyl, (C_1-C_3)-alkylcarbonylamino and mono-(C_1-C_4)-alkylamino-carbonyl,

R^4 represents hydrogen

and their salts, hydrates, hydrates of the salts and solvates.

4. Use of compounds of the formula (I) as defined in Claim 1, wherein said urological disorder is benign prostatic hyperplasia.

5. Use of compounds of the formula (I) as defined in Claim 1, wherein said urological disorder is overactive bladder.

6. Medicaments for the treatment of urological disorders comprising an ECE inhibitor.

7. Medicaments according to claim 6, wherein the ECE inhibitor is a compound of the formula (I) as defined in any one of claim 1 to 3.

8. Method for the treatment and/or prophylaxis of urological disorders in human and/or animal characterised by administering an ECE inhibitor.